

Proposal # 2001- I 212 (Office Use Only)

PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: **Next-Phase Funding for Expanding California Salmon Habitat Through Nonregulatory Mechanisms to Alter Dams and Diversions**
Applicant: Institute for Fisheries Resources
Contact Name: Zeke Grader or Guy Phillips
Mailing Address: P.O. Box 29196, San Francisco, CA 94129-0196
Telephone: 415-561-5080
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Email: fish4ifr@aol.com

Amount of funding requested: \$ 39,000.00

Some entities charge different costs dependent on the source of the funds. If it is different for state or federal funds list below.

State cost N.A.

Federal cost N.A.

Cost share partners? Y Yes No

Identify partners and amount contributed by each Pacific Coast Federation of Fishermens' Associations \$5,000, Metropolitan Water District of Southern California \$20,000 (pending), Patagonia \$7,500 (pending), Foundation for Deep Ecology \$7,500 (pending)

Indicate the Topic for which you are applying (check only one box).

<input type="checkbox"/> Natural Flow Regimes	<input type="checkbox"/> Beyond the Riparian Corridor
<input type="checkbox"/> Nonnative Invasive Species	<input type="checkbox"/> Local Watershed Stewardship
<input type="checkbox"/> Channel Dynamics/Sediment Transport <u>XXX</u>	<input type="checkbox"/> Environmental Education
<input type="checkbox"/> Flood Management	<input type="checkbox"/> Special Status Species Surveys and Studies
<input type="checkbox"/> Shallow Water Tidal/Marsh Habitat	<input type="checkbox"/> Fishery Monitoring, Assessment, and Research
<input type="checkbox"/> Contaminants	<input type="checkbox"/> Fish Screens

What county or counties is the project located in?

What CALFED ecozone is the project located in? See attached list and indicate number. Be as specific as possible 3, 4, 7, 8, 9, 11, 12, 13

Indicate the type of applicant (check only one box):

<input type="checkbox"/> State agency	<input type="checkbox"/> Federal agency
<input type="checkbox"/> Public/Non-profit joint venture <u>XXX</u>	<input type="checkbox"/> Non-profit
<input type="checkbox"/> Local government/district	<input type="checkbox"/> Tribes
<input type="checkbox"/> University	<input type="checkbox"/> Private party
Other _____	

Indicate the primary species which the proposal addresses (check all that apply):

- | | |
|---|---|
| <input checked="" type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input checked="" type="checkbox"/> Spring-run chinook salmon |
| <input checked="" type="checkbox"/> Winter-run chinook salmon | <input checked="" type="checkbox"/> Fall-run chinook salmon |
| <input checked="" type="checkbox"/> Late-fall run chinook salmon | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Splittail | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Green sturgeon | <input checked="" type="checkbox"/> All chinook species |
| <input type="checkbox"/> White Sturgeon | <input checked="" type="checkbox"/> All anadromous salmonids |
| <input type="checkbox"/> Waterfowl and Shorebirds | <input type="checkbox"/> American shad |
| <input type="checkbox"/> Migratory birds | |
| <input type="checkbox"/> Other listed T/E species: _____ | |

Indicate the type of project (check only one box):

- | | |
|---|---|
| <input type="checkbox"/> Research/Monitoring | <input type="checkbox"/> Watershed Planning |
| <input type="checkbox"/> Pilot/Demo Project | <input type="checkbox"/> Education |
| <input checked="" type="checkbox"/> Full-scale Implementation | |

Is this a next-phase of an ongoing project?

Yes ☒

No ☐

Have you received funding from CALFED before?

Yes ☒

No ☐

If yes, list project title and CALFED number

98 - NO 2

Have you received funding from CVPIA before?

Yes ☐

No ☒

If yes, list CVPIA program providing funding, project title and CVPIA number (if applicable):

By signing below, the applicant declares the following:

- The truthfulness of all representations in their proposal;
- The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

William "Zeke" Greder

Printed name of applicant

Zeke Greder

Signature of applicant

B. Executive Summary

Title of Project: **Next-Phase Funding for Expanding California Salmon Habitat Through Nonregulatory Mechanisms to Alter Dams and Diversions**

Amount Requested: \$39,000.00 This proposal seeks funds in the amount of 47% of the total project cost of \$82,395 to match funds already awarded or pending (53%).

Applicant Name: Institute for Fisheries Resources (IFR)
Address: P.O. Box 29196, San Francisco, CA 94129-0196
Phone: (415) 561-5080
FAX: (415) 561-5464
E-mail of Primary Contact: fish4ifr@aol.com

Participants and collaborators: Main partners: MWD, EBMUD, State Water Contractors, Pacific Coast Federation of Fishermens' Associations, Environmental Defense, Sierra Club, League of Conservation Voters, Friends of the River, Sierra Nevada Alliance (see Appendix B for a list)

Executive Summary: This next-phase project will continue to provide technical support for the implementation of measures to be incorporated into PG&E's proposed divestiture of its vast hydroelectric system which includes 174 dams, 400 miles of water diversion canals and tunnels, 140,000 acres of watershed protection lands, and 2.3 million acre-feet of water storage on almost every major river/stream of the Central Valley (a list of the 17 main Central Valley rivers where PG&E has hydro facilities is included in Appendix A). All of these facilities are upstream of the Bay-Delta and are upstream of the CALFED investment projects. None of the facilities meet contemporary state and federal water standards, environmental standards, etc. Yet, the final disposition of these facilities will be decided in the next twelve months.

This IFR project has been providing a central role in assisting local, state, and national agencies and nongovernmental organizations/stakeholders to understand the issues and opportunities for significant ecosystem restoration and other improvements in the divestiture process. At the same time, IFR's project has assisted all the stakeholders to understand the considerable risk of serious adverse effects if the divestiture is not conducted with priority attention to the ecosystem issues.

On this project IFR is collaborating with more than 28 local, state, and federal agencies, consumer groups, environmental groups, water agencies, energy organizations on scientifically-based measures to ensure that, irrespective of which divestiture path is selected, the hydro facilities will contribute to improve the health of the Bay-Delta ecosystem and, more directly, contribute to the success of the CALFED watershed investments (a list of the collaborating organizations is included in Appendix B). One important dimension of the collaboration is improving the coordination of the stakeholders in the legal proceedings underway that will determine the divestiture path and the terms and conditions of the divestiture.

C. Project Description.

1. Statement of the Problem: A “once-ever” opportunity exists for CALFED adaptive management in the restoration of the Bay-Delta and Central Valley ecosystems through the terms and conditions of the PG&E hydro divestiture that will occur in the next 12 months. PG&E proposes to sell as soon as possible at auction for the highest price all of its 174 dams, 400 miles of water diversion canals, 2.3 million acre-feet of storage capacity, and 140,000 acres of watershed protection lands, etc., with no new measures to protect the ecosystems. At the same time, 80 years of the Public Utilities Commission’s role (PUC) will end. Historically, the PUC has been the only entity to authorize PG&E to make ecosystem investments and water releases for fish and wildlife and to recover the costs from ratepayers. There will be no such entity in the future to serve that important role. Unless modified, the adverse effect on CALFED and CVPIA goals, strategies, and projects will continue for decades.

The outcome will not be business-as-usual. The new owner(s) will face operating costs 5 times higher than PG&E’s current costs. The only way the new owner(s) can achieve the higher revenues is through dramatic changes to the way the system will be operated. The new owner(s) will not be regulated by the PUC, so the new owner(s) will be able to: (a) maximize energy operations—water level manipulations—for energy sales, (b) sell “time of delivery” of downstream water flows, (c) sell the watershed protection lands for development, (d) engage in mining, logging, and other practices that will adversely affect water quality. In the critical summer months, more than 50% of the water releases from the PG&E system are discretionary.

The PUC is conducting hearings to review alternatives to auction and to consider the water quality, environmental and other effects of divestiture. Those proceedings will conclude in 2001. In addition, the Administration and the Legislature are considering alternatives to auction. IFR has been collaborating and coordinating technical and operational information flow to the decision makers, as well as submitting formal testimony and informal technical assistance to each of the stakeholders to familiarize them with all of the issues and approaches to ensure that the divestiture makes improvements and does not worsen existing conditions or jeopardize CALFED investments.

The PUC’s ability to do anything about the adverse effects of the auction is severely constrained. The Federal Power Act assigns almost exclusive authority to regulate the operations of FERC licensed projects to FERC. Operating requirements are between FERC and the owner, with input by other parties. New requirements by the PUC could be rendered invalid in a court challenge.

An alternative to an auction of these long-protected monopoly assets is AB 1956 by Speaker Pro Tem Keeley. AB 1956 would authorize an independent state owned Public Trust, the “Consumers’ Energy & Environmental Security Authority” to purchase the hydro assets for a transitional period of six years during which the ecosystem and other issues associated with divestiture of the assets will be addressed. The revenues earned from energy sales would generate approximately \$500 million in the six year period of time and would be invested in water quality, fish and wildlife, and ecosystem restoration objectives to make these facilities consistent with CALFED objectives and long term requirements of the State. The IFR Project Manager, Dr. Guy Phillips, designed the Consumers’ Authority approach as part of the first stage

CALFED grant (Tasks 4 and 5). The Consumers' Authority is supported by a broad coalition of 24 environmental, water agencies, and consumer organizations as well as rural counties (Appendix B).

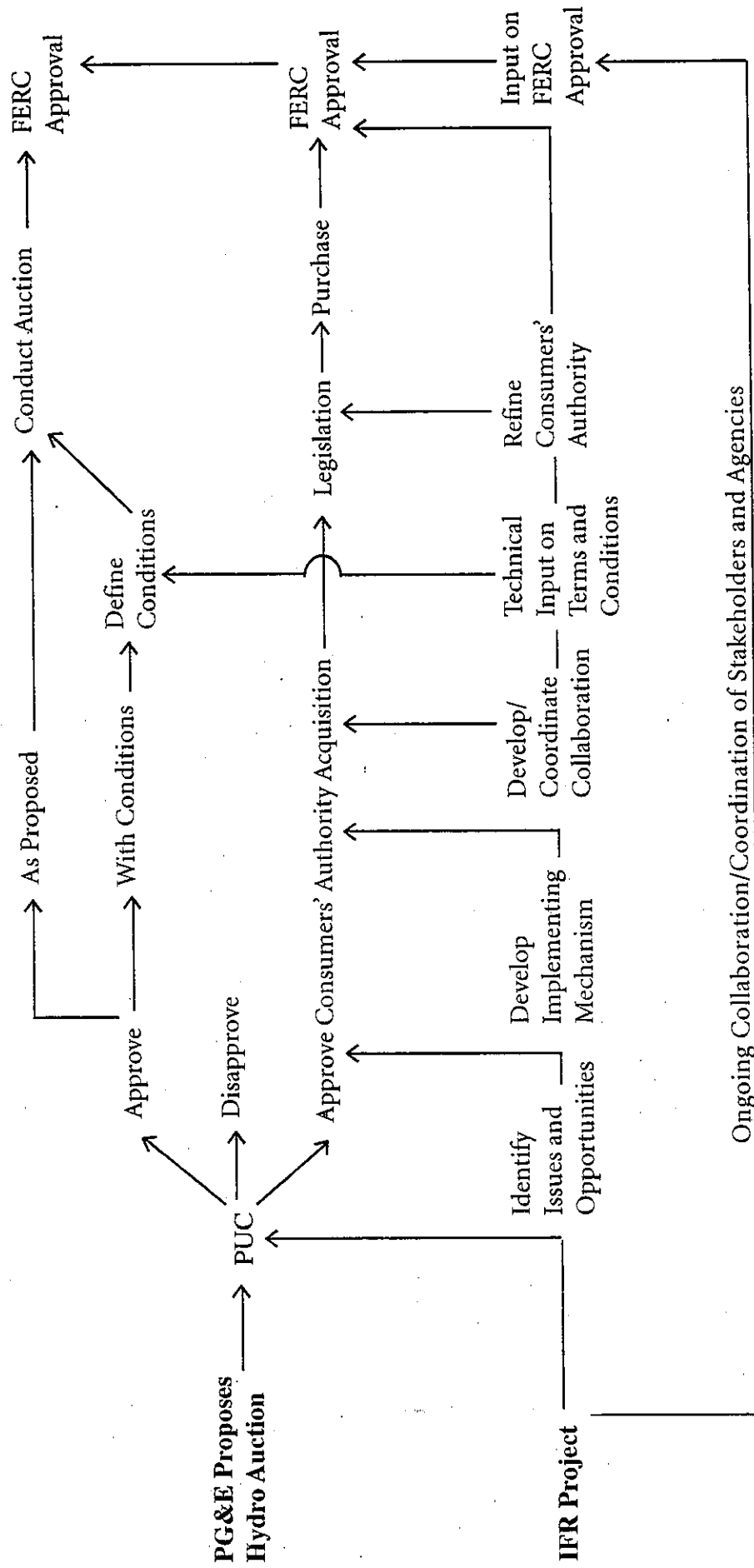
How the new owner(s) will actually operate and the resultant consequences on downstream resources is only poorly understood as PG&E seeks to rush the auction. The IFR first-stage project has assisted the resource agencies, the PUC, and the stakeholders understand the range of issues and risks. The divestiture process has now reached a point where the concerns have to be converted into specific terms and conditions of the divestiture itself.

b. Conceptual Model: The decision-tree model has two main branches that with considerable adaptive management on both branches. Decision makers can either: (1) seek to impose terms and conditions on the PG&E divestiture and run the risk of losing a federal preemption lawsuit, or (2) allow the Consumers' Authority to purchase the assets and make the needed ecosystem improvements as the owner, thereby sidestepping the federal preemption issue. IFR will continue to assist each of the decision makers understand the: (1) ecosystem issues: what is known and what is unknown, and the associated risks, (2) the financial issues: especially the financial imperative of new owners that will drive them to exploit every revenue potential at the expense of downstream water quality, water supply, ecosystem and other effects, (3) the legal issues: the boundaries of the Federal Power Act and other contracts, water rights, and legal parameters that pose downstream risks (or, conversely, create opportunities to make substantial improvements). Figure 1 following illustrates the Conceptual Model.

c. Hypotheses being tested: The hypothesis is that key State decision makers will recognize that the consequence of a failure to manage the PG&E hydro divestiture properly will be an immediate and a long term consequence to CALFED, ecosystem restoration, water management, and at-risk species and that, instead, decision makers will manage the divestiture to achieve some or all of the opportunities for significant improvements. Key information about the impact of historic PG&E operations on the watersheds, the Bay-Delta, and the fish and wildlife habitat is being provided to decision makers. Just as importantly, key information on the possible new operating practices and their unknown effects on these critically important ecosystems is also being provided to decision makers. Finally, decision makers are being provided with detailed information on the opportunities to shape the divestiture's terms and conditions so that every opportunity is taken that will: (a) minimize further damage, and (b) maximize opportunities to make significant ecosystem restoration improvements through the hydro divestiture process.

A corollary hypothesis is that decision makers will recognize that the best way to achieve the substantial ecosystem improvements and to minimize the adverse effects is for the State to own the assets and invest the proceeds of energy revenues to improve the hydro system. This approach is the only approach that provides the time, money, and the mandate to do the hydro divestiture properly. This approach is the only approach that is completely within the requirements of the Federal Power Act. Detailed operational and financial analyses have been presented to the decision makers regarding how interim state ownership could net almost \$ 1 billion during the temporary state ownership period, 50% of which would be distributed to consumers as a cash dividend and 50% would be invested to make the improvements in the system (\$500 million). Analyses have been performed that demonstrate that the hydro system is

FIGURE 1: CONCEPTUAL MODEL



worth more in the market place after the short term ownership because the facilities would meet modern state and federal requirements. The Next-Phase portion of this project would continue to work with decision makers, stakeholders, and the financial community to demonstrate the advantages of this approach.

d. Adaptive Management: This project incorporates all of the features of adaptive management. Figure 2 illustrates the adaptive management approach to this Next-Phase project. Just as importantly, the results of this project offer the only approach under consideration by decision makers that will incorporate adaptive management into the terms and conditions of the PG&E hydro divestiture itself—for the benefit of decades of ongoing improvements.

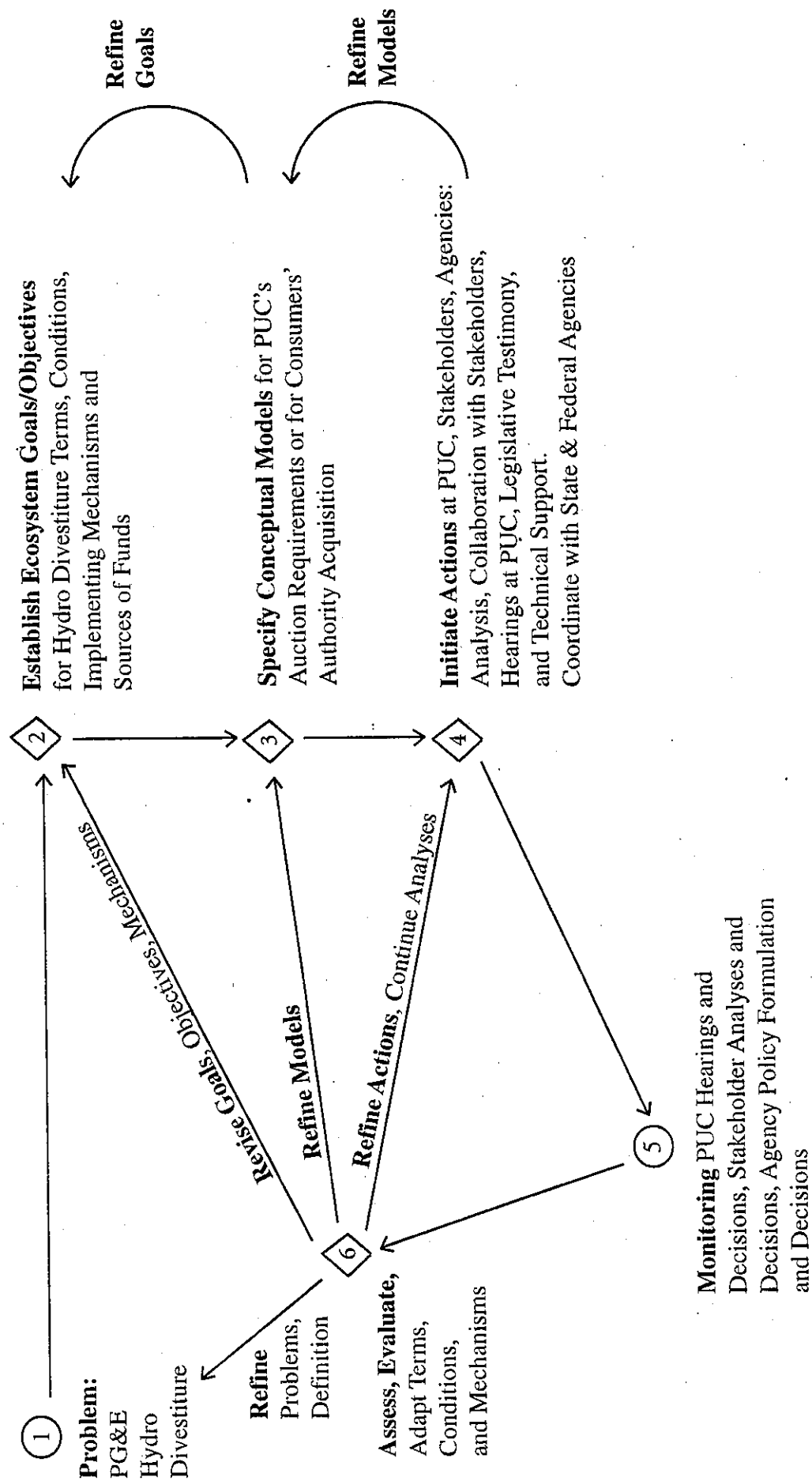
As decision makers become more aware of both the risks associated with the uncertainties regarding future owners' operation of the facilities and the scientific uncertainties about the effects of totally new ways of operating these hydro facilities, their view will change about the divestiture options. This Next-Phase project will continue to focus on the decision makers: the information they have, the information they need, the unknowns, and the wide range of water management and ecosystem risks if they proceed with the auction as proposed. This project will also provide information to decision makers about the opportunities to make significant water management and ecosystem improvements if they either: (a) adopt the "interim state ownership" type of approach, or (b) adopt terms and conditions of any divestiture approach to ensure that the new owner(s) incorporate the necessary changes so that such new owners cannot later resist the changes on the basis that they "weren't told" that they would have to make the changes.

e. Educational Objectives: This project has several key educational objectives for the decision makers, stakeholders, and general public. The objectives are: (1) assist the decision makers, stakeholders, and general public to learn the relationship between the proposed hydro divestiture and the CALFED program, objectives, strategies, and projects; (2) assist the same groups to learn the potential adverse consequences to the CALFED program, etc., if the hydro divestiture is not managed in such a manner as to minimize the adverse effects; (3) assist the groups to learn the positive and substantial opportunities to enhance the CALFED program, strategies, and projects through a directed and focussed adaptive management approach in the divestiture process; and, (4) assist the groups come to a decision that achieves the positive benefits and minimizes the adverse consequences.

The audience for the educational aspect of this Next-Phase project is considerable, extending from southern California water and energy users, recreational/tourist interests, to northern Californian agricultural, urban, and fishing interests. Approximately 85 organizations are involved in the PUC proceedings. All of the Legislature, the key resource agencies, etc., are concerned at the state policy making level. The media has already shown considerable interest with articles in the Los Angeles Times, San Francisco Chronicle, Sacramento Bee, and numerous other local/regional print and broadcast media throughout the state. The PUC has twice issued decisions indicating that it will continue to investigate the "interim state ownership" option.

The correlation between a proposed sale of a low-visibility hydro system and the CALFED project is not obvious to most of the public, much less is the public aware of the long term consequences of not managing the sale adequately. The first phase of this project has had

FIGURE 2: ADAPTIVE MANAGEMENT APPROACH



considerable success in all forms of workshops, presentations, multimedia displays, formal testimony, and the print/broadcast media to assist the public to recognize the importance of the hydro divestiture as it relates to Bay-Delta quality, ecosystem restoration, at risk species management, and a whole range of water management issues. The Next-Phase project will continue in these activities.

All of the educational work is integrated and focussed on the decision makers. The work with the media and the collaborating organizations is coordinated to focus the presentation of the critical information at appropriate points in the decision making process.

2. Proposed Scope of Work.

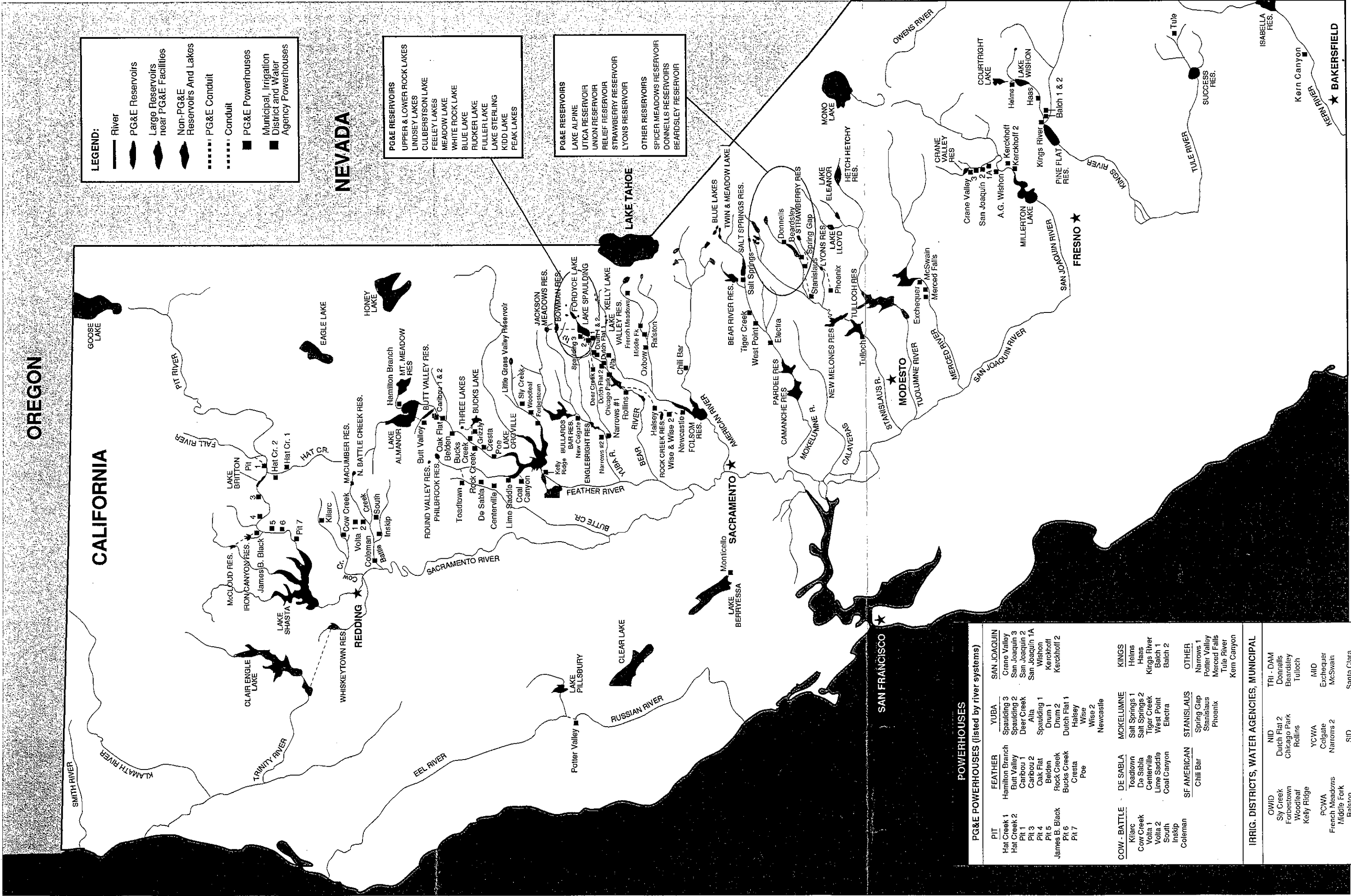
a. Location and/or Geographic Boundaries of the Project: The PG&E hydro facilities extend over 17 major Central Valley river systems from the Kern River in the southern end of the Central Valley and traversing the Valley 600 miles north to the Pit River facilities above Lake Shasta (see Map).

b. Approach. This Next-Phase project builds on the five basic features of the first-phase: (1) document the extent, timing, and financing of the opportunity for acquisition/modification of private dams from willing sellers, (2) identify candidate Central Valley sites, (3) develop a template for analysis and resolution of issues for use by the public and agencies for all potential sites, (4) develop a private sector mechanism to acquire dams from willing sellers, and (5) conduct community and peer review workshops. This project has four tasks.

Task 1 Document the Opportunity: This task serves as input data for Task 2 below. The First-Phase of this project documented the opportunity for ownership changes and corresponding operating modifications at private dams/diversions. The opportunity for salmon restoration and other benefits that can be achieved through major physical modifications at private dams/diversions was documented. The Battle Creek, Butte Creek, White Salmon River (Washington), and Elwha River (Washington), Rogue River (Oregon), the Kennebec River (Maine), and other projects were used as demonstrations where major modifications are being made. This Next-Phase project will refine the opportunities in the context of the specific PG&E hydro divestiture and will expand the list to include opportunities for significant improvements through additional modifications in operations, operating agreements, release schedules, and habitat/ecosystem restorations that could be achieved through PUC or FERC requirements in the hydro divestiture or through acquisition by the Consumers' Authority.

Task 2 Implementing Mechanism: Identify/refine organizational mechanisms, e.g. the Consumers' Authority, to acquire private dams/diversions from willing sellers with fair compensation. This task will illustrate methods through which public-private partnerships can carry out projects in cooperation with the new mechanisms/organization. We will provide to decision makers a detailed description of how a new mechanism/organization could facilitate major physical modifications or changes in operating regimes of dams and diversions such as those identified in the previous task.

PG&E'S HYDROELECTRIC FACILITIES AND CONTRACTS



This task continues the ongoing collaboration and coordination of the flow of scientific information, legal parameters, financial information, etc., between the stakeholders, the general public, and decision makers.

This task will continue to refine and demonstrate the role that the Consumers' Authority could serve in cooperation with the state and federal governments as it could: (i) implement actions more quickly than the state and federal governments (with their respective budget constraints), (ii) complement ongoing land use and water use planning and management activities for ecosystem restoration benefits, and (iii) reduce reliance on the uncertain outcomes of indirect regulatory approaches for ecosystem restoration.

Evaluate the innovative, cost effective, and affordable technique that these public-private partnerships offer so that it can be shared with communities and interest groups throughout the Central Valley that are involved in ecosystem restoration and the hydro divestiture issues.

Demonstrate how this innovative approach expands the tools for the Secretary of the Interior, other federal agencies, and state agencies to coordinate the operation and modification of their own dams and diversions with changes at the private facilities. This approach expands the ways in which the Secretary can work within existing authorities to achieve the goals of the CVPIA while working in partnership with the new organization.

Demonstrate the use of this innovative approach in conjunction with, but reduce reliance on, regulatory approaches (e.g., SWRCB and FERC) to achieve ecosystem restoration goals. For example, in partnership with state, federal, and community restoration projects, the organization could use its access to innovative financing sources and tools to:

- acquire full or partial interest in dams and diversions
- acquire water rights for salmon
- purchase or compensate for power sale losses
- acquire and restore habitat upstream or downstream from existing dams and diversions
- support communities in their salmon restoration projects, including negotiating water rights deals that would enhance the probability of the success of the restoration project

Task 3 Stakeholder Workshops: Stakeholder participation will continue as a mechanism to collaborate on the progress and refinements from this project with communities, organizations, and individuals involved in the hydro divestiture and those engaged in restoration actions.

Appendix B provides a sample list of the organizations that have already been involved in the process. Numerous other local stakeholders (e.g., recreation interests, water/irrigation districts, owners of PG&E property leases, etc.) have been involved in the process so far and would continue to be involved in the Next-Phase.

Task 4 Interagency Advisory Committee: The collaborating individuals and organizations will continue to serve as an advisory committee of local, state, and federal government representatives from the resource agencies and the energy agencies.

Task 5 Peer Reviews and Workshop: In this task we will continue to obtain additional peer review from the professional/scientific community, owner-operators, regulators, and other stakeholder groups. Participants in the review process so far have included professionals from: PUC, FERC, bond counsel, State Treasurer's Office, bond underwriters/financiers, as well as those listed in Appendix B.

Task 6 Project Management: The Next-Phase project management will continue under the same structure as in the First-Phase with Dr. Guy Phillips as the Project Manager. Ongoing administration and accounting will be provided by Molly Thomas.

c. Monitoring and Assessment Plans. Monitoring and assessment of this project is conducted in a two-part manner: (1) Evaluation of the substantive contributions made to the decision makers and the decisions themselves in a timely manner according to milestones established by the decision makers, e.g. the PUC's published schedule for consideration of the PG&E hydro auction proposal. Each of the decision makers have established schedules and substantive topics for consideration at selected milestones. This project has contributed at each milestone and would continue to do so through the balance of the project. The assessment of the success of the Next-Phase project's success will be measured by the extent to which the output of this project has been provided to decision makers in a timely manner and has been used by them in their decision making.

(2) Evaluation of the Next-Phase project's success in gaining substantial public support for the hydro divestiture alternatives developed in this project. Alternatives include: (a) measures to modify PG&E's proposed hydro auction to include terms and conditions with respect to water management and (b) ecosystem restoration and new alternatives that would replace the auction itself such as the Consumers' Energy & Environmental Security Authority. This project first designed the Consumers' Authority option and then built a large and diverse coalition of organizations supporting creation of a Consumers' Authority to manage the water and ecosystem needs of the hydro divestiture process (see Appendix B). The Next-Phase project will continue the education and support building process all the way through the decision making processes underway at the PUC and the State Legislature. The assessment of this component of the project's success will be measured by the extent to which more citizens, stakeholder groups, and public agencies have become involved and supportive of the IFR efforts in the hydro divestiture proceedings.

d. Data Handling and Storage. The data and information collected in this process has been routinely shared by the collaborating organizations in both hard copy and electronic formats. In addition, the data and information collection activities of the collaborating organizations has been coordinated by this project to ensure that the information flows to key decision makers. Furthermore, this project has included presentations and formal testimony in the proceedings at the PUC and Legislature. As such, the data and information has been available to all parties and the general public in hard copy and electronically through the web pages maintained by the decision making organizations (e.g., the PUC). Technical reports, testimony, and presentation materials have been widely distributed, including through both the print and broadcast media.

e. Expected Products/Outcomes. The First-Phase of this project has already had a profound effect on shaping two dimensions of the hydro divestiture issue: (1) the PUC-side of the equation where the hydro divestiture would otherwise have been concerned primarily with the "ratepayer" questions (as it has for all of the other preceding utility company divestitures), and (2) the resource-side of the equation where the resource agencies and stakeholder groups would have been focussed on the resource management issues through the conventional regulatory mechanisms, such as the FERC. The First-Phase assisted all parties to recognize that they need to work together toward an outcome that works for all. The Next-Phase of this project now focuses specifically on public-private mechanisms to achieve optimum results. The reports, testimony, briefing materials, etc., developed through this project will continue to represent the state-of-the-art in developing terms, conditions, mechanisms, and financing tools to accomplish the hydro divestiture with minimum adverse effects while maximizing the opportunities to achieve substantial ecosystem restoration objectives.

This project expands the potential to reduce or eliminate a significant number of primary stressors, namely water diversions, dams, reservoirs, weirs, and other structures through public-private partnerships and with willing sellers. Improvements to fish passage could be immediate and permanent. All 8 of the Ecological Zones that have one or more of the PG&E dams, diversions, watershed protection lands, etc., that will be sold or transferred will benefit directly from this Next-Phase project. Other Ecological Zones will benefit indirectly through the gains made in the 8 directly affected Zones. Many of the priority, primary and secondary, species concerns will benefit.

The opportunity to improve dramatically fish passage, the success rate of restoration projects, expand habitat, and improve stream flows, natural sediment transport, etc., are enhanced through the new terms and conditions on the divestiture and through nonregulatory partnerships. But, the tremendous opportunity these new conditions create for public-private partnerships may be lost unless the opportunities are organized and an appropriate institutional mechanism is created in a timely manner to fit within the PUC's schedule for the next 12 months.

The Primary Biological/Ecological Objectives served are two-fold: (1) Immediate objectives resulting from contributions to the PUC and legislative processes, and (2) Broader benefits to the communities, interest groups, and professionals working on the biological/ecological issues associated with dams/diversions and restoration projects during the next few years when most of the privately owned dams will be available for acquisition, removal, or major modification.

f. Work Schedule.

Task	Description	Schedule (after Award)	Milestone Payments (%)
1	Document the Opportunity	2 months	15%
2	Implementing Mechanism	6 months	35%
3	Community Workshops	7 months	20%
4	Agency Advisory Committee	Concurrent with Tasks 1-3	10%
5	Peer Reviews and Workshop	8 months	10%
6	Project Management	Ongoing	10%

If tasks 4 and 5 were postponed, the total cost of the project would be reduced by \$11,340 to \$71,055. The CALFED portion of the total cost requested in this proposal would be reduced by \$ 5,430 to a total of \$ 33,570.

g. Feasibility. The success achieved in the First-Phase illustrates that this Next-Phase project is not only feasible but critical to conclude a hydro divestiture that minimizes immediate and long term adverse water management and ecosystem consequences and maximizes the substantive gains in water management and ecosystem improvements. The PUC Assigned Commissioner has already adopted recommendations from the first phase of this project, has adopted management principles presented by this project, and has incorporated procedural approaches that set the stage for continuing input from the Next-Phase of this project. The PUC Assigned Commissioner has invited continuing involvement of the first-phase project in PUC deliberations. At this time, the interim state ownership alternative to divestiture developed as part of the First-Phase project is the only avenue being considered by the Legislature.

Furthermore, the partnerships and collaborations that the first-phase has developed continue to grow and expand. Already the collaborators developed by the first-phase of this project include an almost-unheard of level of cooperation and coordination among groups representing water agencies, environmental groups, rural counties, energy agencies, consumer groups, and taxpayer groups. Each week, more organizations join the effort and are collaborating with IFR's personnel on the ongoing project (see Appendix B). Most recently, for example, organizations joining the collaborative effort include: League of Women Voters, Southern California Steelhead Recovery Coalition, Placer County Water Agency, and the Regional Council of Rural Counties.

No permits, agreements, or permissions are necessary for this project (see accompanying letter). No private property will be used or entered as part of this project.

This Next-Phase project and the results not only are implementable, but expand the range of tools available under existing laws and policies for nongovernmental organizations and government agencies that are involved in fish passage improvement and rehabilitation projects.

Notably, the project entails working with a willing seller of dams/diversions (PG&E) simultaneously to establish reasonable compensation arrangements while also working within all of the owner's permits, easements, contract obligations, etc., to achieve substantial ecosystem improvements. The comprehensive and systematic approach that this project has developed maximizes coordination and cooperation between private dams/diversions, government owned dams/diversions, restoration project managers, and the changes in the electric industry that are being managed by the corresponding energy agencies and energy companies. Without this project, the restructuring of the energy industry and corresponding changes in ownership and management of hydro facilities will be ad hoc and will not benefit from the lessons learned by early projects.

D. Applicability to CALFED ERP Goals and Implementation Plan and CVPIA Priorities.

1. ERP Goals and CVPIA Priorities. The following table summarizes the relationship between the proposed Next-Phase project and the ERP Goals and CVPIA Priorities.

ERP GOAL	Relationship of Next-Phase Project
Recovery of at-risk species	Ecosystem improvements on 17 major Central Valley streams and the Bay-Delta
Harvestable species	Improved habitats, flows, and water quality for all of the harvestable species
Protect or restore functional habitat	In addition to the water-based ecosystem improvements, 140,000 acres of watershed protection lands will be protected and restored
Improve and maintain water quality	Improve 174 dams, 400 miles of water diversion canals, and 2.3 million acre-feet of storage meet and maintain contemporary state and federal water quality standards
CVPIA PRIORITY	
Magnitude of benefits to biological resources	A "holistic" approach to directly benefit 12 of the 14 Ecological Zones and the Bay-Delta
Benefits to Special Status Species	Special Status fish passage, habitat, and water quality will be improved through this project
Ecosystem or Multiple Species benefits	Direct benefit to 12 of the 14 Ecological Zones, and the Bay-Delta
Protection /restoration of natural habitats and habitat values	140,000 acres of watershed protection lands are at stake, in addition to the 174 dams, etc.
Long-term benefits	The benefits will continue for decades through future operations of the hydro facilities
Immediate benefits	Altering the hydro decision in favor of ecosystem and other concerns is immediate
Effectiveness	Already demonstrated in the changes and decisions made so far; continuing through the implementation phase is critical
Permanence and "mitigability" of adverse impacts	This project will not have any adverse impacts, but will avoid ones that absence of this project may create
Continuing/ongoing efforts	This is a continuing project.
Technical feasibility	The first-phase of this project proved its technical feasibility.
Timeliness	This project is extremely timely and time sensitive; it is coinciding with the key decisions at the PUC and elsewhere
Partnerships/opportunities	The project itself entails a partnership with more than 24 organizations and involves a long term partnership with the new hydro owners

Implementability	This project entails the development of new tools for hydro project management within the legal parameters
Public support	The proposals developed as part of the first phase have been supported by 24 organizations and hundreds of citizen letters (Appendix B)
Compatibility	This project has positive synergistic benefits to many of the CALFED/CVPIA projects
Economic effects	This project will protect hundreds of millions of dollars invested and tens of millions of future regulatory and restoration costs
Project costs	A cost sharing, highly cost effective project
Impact to water supply	Positive effect on water supply for CVPIA
Impact to water quality	Positive effect on water quality for CVPIA
Impact to power	Minor effect on power/positive for CVPIA
Immediate benefits	Immediate benefits for CVPIA and ERP

2. Relationship to Other Ecosystem Restoration Projects. Many, if not most, of the previously funded CALFED and CVPIA projects are downstream from the PG&E hydro assets. PG&E hydro assets are physically located in eight of the 14 CALFED Ecological Zones. Operation of the hydro assets affect 12 of the 14 CALFED Ecological Zones. As a result, almost all of the CALFED and CVPIA investments are at least somewhat vulnerable to the future operations of new private owners. Certainly the Bay-Delta will be affected and in that sense all of the Ecological Zones will be affected. Meanwhile, those new owners will face a financial burden to generate at least five times as much money from the PG&E system as we have seen in the past. It will not be business-as-usual.

This Next-Phase project will support the CALFED and CVPIA investments and partnerships in restoration projects, habitat acquisition and restoration, water rights/flows acquisitions, and will directly impact improvements on limiting factors and stressors on the ecosystems.

3. Requests for Next-Phase Funding. Appendix C contains a 2-page summary of the existing project status. The relationship of the proposed Next-Phase project to the previously funded first-phase project is the emphasis and focus of the proposed project on implementation of the results of the first-phase. The first-phase project demonstrated the opportunity to make substantial ERP improvements, established mechanisms by which the improvements could be achieved, and designed implementing mechanisms. The implementation has already been started in the sense that the recommendations of the first-phase project have been incorporated into the decision making processes underway at the PUC, the Executive agencies, and the Legislature.

The Next-Phase project will focus on continued support to the decision makers and stakeholder organizations to maximize opportunities for ERP improvements and to minimize the adverse ERP impacts if the proposed measures are not undertaken. A central component of the first-phase has been to demonstrate to decision makers and stakeholders that there is a mechanism by which the time, money, and mandate to accomplish substantial improvements can be achieved.

PG&E's own proposal would not provide the time, money, or mandate to make improvements. The first-phase project was very successful in changing the decision makers' and stakeholders' perspective that they had to work within the parameters as defined by PG&E. The Next-Phase will continue to assist all of the parties to incorporate measures for substantial ERP improvements in the decisions that will be made over the next 12 months.

4. Previous Recipients of CALFED or CVPIA Funding. This Next-Phase project is a continuation of a previously funded CALFED project #98-NO2 entitled "Expanding California Salmon Habitat Through Non-governmental and Nonregulatory Mechanisms to Alter Dams and Diversions". It is discussed in previous sections.

5. System-wide Ecosystem Benefits. (See Sections 1. and 2. Above) This project has synergistic benefits to many of the CALFED and CVPIA projects, especially those in the 12 Ecological Zones that are directly affected by the operation of PG&E's hydro facilities. Conversely, if the PG&E hydro divestiture proceeds without consideration of the issues that are being presented by this project to decision makers, the adverse immediate and long term effects on CALFED and CVPIA projects will be considerable.

E. Qualifications.

IFR has successfully managed a large number of projects pertaining to the California fisheries, salmon restoration projects, and other fisheries improvement projects. IFR has years of practical experience in fisheries, fish passage, and restoration projects. IFR has completed six salmon restoration and evaluation projects. IFR presently has salmon restoration and assessment projects underway in the Battle Creek and Butte Creek watersheds. In addition, IFR has had numerous other similar projects in the Central Valley and North Coast regions of California, Washington, and Oregon.

Dr. Phillips is the Principal Investigator on the project. Dr. Phillips is Project Manager of IFR's "Future Management of Dams Project." As part of the first-phase of this project, Dr. Phillips designed the "Consumers' Energy & Environmental Security Authority" and wrote the implementing legislation. Dr. Phillips also provided expert witness testimony on behalf of seven intervenors at the PUC concerning the PG&E hydro divestiture proposal in order to present to decision makers the issues and opportunities that this project has identified.

Dr. Phillips has more than 26 years experience working on comparable projects beginning in 1972 when he worked on the first FERC relicense application. He is the former Assistant Secretary for Resources, California Resources Agency where he was directly involved in water resource management, statewide energy issues, and salmon restoration. He has worked in California, other states of the U.S., and internationally on the economics and legal-institutional aspects of water resource and fisheries management, including instream valuation, legal mechanisms for stream management, State Water Project and Central Valley Project plans, management and evaluations, public-private partnerships (including for example, the California Renewable Resource Investment Fund). Other example clients/projects include: the (California) Governor=s Task Force on Water Rights Law, the San Francisco Estuary Comprehensive

Conservation Management Plan, and the Santa Monica Bay Restoration Plan, and the California Urban Water Conservation Council.

Dr. Phillips is also an expert on the California electric and hydroelectric sector. He has served as an expert for the State Legislature, California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and FERC. He has been a consultant to private organizations (e.g., utilities and private electric generators). In addition, he has served as an expert witness in CPUC proceedings on related regulatory issues.

Dr. Phillips has worked on a large number of dam management, relicensing, fish passage, and water quality projects throughout the U.S., most recently in California, Vermont, Montana, Wisconsin, and Australia.

Dr. Phillips has authored or co-authored more than 90 publications and technical reports on related topics on the economic and institutional aspects of water resource, fisheries, and energy projects, including avenues for public-private partnerships to address critical needs.

F. Cost

1. **Budget.** This project will be completed in one year. No equipment or other items exempt from overhead costs are involved. No overhead is charged on the Service Contracts. Salary basis is as follows:

Personnel, Title	Daily Salary Basis
William Grader, Executive Director, IFR	\$ 327.27
Molly Thomas, Administrator	\$ 145.45
Clerical	\$ 127.27

TABLE 1: Cost Breakdown Table

Project Task	Direct Labor Hours	Salary	Benes @ 19.2%	Travel	Supplies	Service Contracts	Overhead @ 30% of Direct	Total Cost	CALFED Cost
Task 1	64	1273	244	-0-	100	4400	30	6,048	2,500
Task 2	96	1782	342	600	300	46225	270	49,519	24,500
Task 3	72	1382	265	400	300	6160	210	8,718	4,000
Task 4	64	1273	244	400	100	3872	150	6,039	3,000
Task 5	64	1254	241	200	100	2640	90	4,525	2,000
Task 6 (Project Mgmt)	80	1545	296	-0-	325	5280	100	7,546	3,000
TOTAL	440	8509	1634	1600	1225	68,577	850	\$82,395	\$ 39,000

2. **Cost-Sharing.** Of the total project cost, approximately 53% will come from organizations which have already been partners in the first-phase of the project, including the Pacific Coast Federation of Fishermens' Associations, Metropolitan Water District of Southern California

(MWD), Patagonia Foundation, California State Water Project Contractors Association, and the East Bay Municipal Utility District (EBMUD). All of the funds are either committed or pending subject to award of this grant.

G. Local Involvement

This project is being coordinated with local and regional projects, the formal proceedings at the California Public Utilities Commission, the Legislature, and the Executive agencies. In addition, the project is being coordinated with the California Attorney General's Office and the California State Treasurer's Office. Collaboration and coordination is being conducted on a daily basis through email and personal contact, briefings, and working group sessions.

Appendix B provides a summary list of nongovernmental organizations, agencies, water management agencies, energy organizations, local governments, and consumers groups which were involved in the first-phase of this project. Additional organizations which have been involved include:

Representatives of the Boards of Supervisors of (in addition to those listed in Appendix B):

Alpine County
Amador County
Lassen County
Merced County
Plumas County
Tehama County
Trinity County

Additional organizations include:

American Rivers	California Taxpayers' Assn
American Whitewater Association	IBEW and other labor organizations
Planning and Conservation League	California Farm Bureau
Independent Energy Producers Association	
California State Assembly	
California State Senate	
California Governor's Office	

No field activities will be conducted in any of the counties. This project is only involved in the ongoing proceedings at the PUC and the Legislature, no landowners, local public agencies, etc., will be affected by the project itself, and as confirmed by CALFED staff, there is no need to be notified of this project. Appendix D provides a letter of explanation.

H. Compliance with Standard Terms and Conditions

IFR agrees with, and is in compliance with the applicable standard terms and conditions as set forth in Attachments D and E of the Proposal Solicitation Package. The applicable Nondiscrimination Compliance Statement and Noncollusion Affidavit are attached herein as Appendix E.

APPENDIX A

CENTRAL VALLEY RIVERS WHERE PG&E FACILITIES ARE LOCATED

Sacramento River Tributaries

Fall River
Pit River
Hat Creek
Cow Creek
Battle Creek
Butte Creek
Feather River
Yuba River
Bear River
American River

San Joaquin Tributaries

Mokelumne River
Stanislaus River
Merced River
San Joaquin

Other Central Valley

Kings River
Tule River
Kern River

APPENDIX B

ORGANIZATIONS SUPPORTING AB 1956 (Keeley)

CONSUMERS' ENERGY & ENVIRONMENTAL SECURITY AUTHORITY

Environmental Defense
TURN (statewide consumers/ratepayers organization)
Sierra Club
Metropolitan Water District of Southern California
Consumers Union
California State Water Contractors Association
East Bay Municipal Utility District
Yuba County Board of Supervisors
Humboldt County Board of Supervisors
Mariposa County Board of Supervisors
Nevada County Board of Supervisors
Placer County Board of Supervisors
Yuba County Water Agency
Placer County Water Agency
Pacific Coast Federation of Fishermens' Associations
Northern California Power Agency
California Hydropower Reform Coalition
Office of Ratepayer Advocates; Public Utilities Commission
California League of Conservation Voters
Friends of the River
Sierra Nevada Alliance
Trout Unlimited
CalTrout
California State Water Contractors Association
California Sportfishing Protection Alliance
Southern California Steelhead Recovery Coalition
League of Women Voters

Organizations Collaborating on AB 1956 and PG&E Hydro Divestiture

California Resources Agency	California Water Resource Control Board
California Department of Water Resources	California State Lands Commission
California Department of Fish & Game	Governor's Office of Planning & Research
California Energy Commission	California Public Utilities Commission
California State Treasurer's Office	California State Assembly
California State Attorney General's Office	California State Senate
U.S. Bureau of Land Management	U.S. Bureau of Reclamation
U.S. Forest Service	

APPENDIX C

SUMMARY OF EXISTING PROJECT STATUS

Expanding California Salmon Habitat Through Non-governmental and Nonregulatory Mechanisms to Alter Dams and Diversions

1. **Brief Description.** The project has five basic features: (1) document the extent, timing, and financing of the opportunity for acquisition/modification of private dams from willing sellers, (2) identify candidate Central Valley sites, (3) develop a template for analysis and resolution of issues for use by the public and agencies for all potential sites, (4) develop a private sector mechanism to acquire dams from willing sellers, and (5) conduct community and peer review workshops.
2. **Summary of the scientific merit of the project including hypotheses, conceptual model, and adaptive management framework.**
 - a. hypotheses: The principal hypotheses are that: (i) there are substantial ecosystem restoration and other improvements consistent with CALFED and CVPIA goals, objectives, and strategies, that can be accomplished through the PG&E hydro divestiture proceedings; (ii) there are major risks to the Central Valley ecosystems, Special Status Species, and other consequences if the PG&E hydro divestiture is not managed properly, and (iii) there are mechanisms, such as the Consumers' Energy & Environmental Security Authority, by which the time, money, and mandate to address these issues that should be implemented.
 - b. conceptual model: The conceptual model is that either: (i) the PUC can seek to establish terms and conditions on the PG&E proposed auction which the PUC will likely have to defend against a federal preemption challenge, or (ii) the Consumers' Authority can buy the assets and use net revenues from electricity sales to make the necessary investments in this vast hydro system.
 - c. adaptive management framework. There are two dimensions to the adaptive management framework embodied in this project: (i) the adaptive management necessary to participate effectively in the proceedings underway at the PUC, in the Legislature, and in the Executive agencies, and (ii) the adaptive management structure that the hydro divestiture itself should have in place in order to ensure that the hydro facilities can adjust to future conditions, requirements, and ecosystem restoration objectives.
3. **Current status of the project, accomplishments to date, information generated, fiscal status, and any outstanding regulatory or implementation issues.**
 - a. status: the existing project is near completion of its original scope of work and will be complete by the schedule for award of the Next-Phase grant. The two should dovetail reasonably well.

b. accomplishments to date and information generated: Substantial accomplishments have been achieved: (i) the debate associated with the PG&E hydro divestiture has been completely changed from an original focus on the impact of divestiture on the ratepayer to a focus on the impact on the environment, including the impact on CALFED, (ii) a broadened awareness of the profound ways in which the broken-up hydro system, sold off to the highest bidder, will impact the environment throughout the Central Valley, (iii) a new awareness among the stakeholders and government agencies that there are alternatives to the proposed auction approach proposed by PG&E, (iv) an awareness of the opportunities not only to avoid the negative impacts of divestiture but also to achieve significant ecosystem improvements, and (v) an awareness and appreciation of the opportunities for significant improvements through a mechanism designed in the first-phase of this project—the Consumers' Authority—which is now embedded in AB 1956 (Speaker Pro Tem Keeley), legislation written in the first-phase of this project which is now making its way through the Legislature.

c. fiscal status: The project budget has sufficient funds to carry it until the Next-Phase project is funded. If the Next-Phase project is not funded, the project will cease and no new resources will be available to support the activities at the PUC and the Legislature.

d. regulatory or implementation issues: Conduct and performance of this project does not entail any regulatory or implementation issues. Instead, this project will expand the regulatory and nonregulatory tools available to the agencies and the stakeholders to bring about the most desirable outcome from the PG&E hydro divestiture.

4. **Summary of the existing data collection and monitoring program.** The existing program entails a combination of internet and hard copy flow of documents, testimony, technical reports, and analyses between the collaborating organizations. In addition, this project is providing critical coordination services between the participating organizations both at the PUC and in the Legislature. The monitoring program includes both monitoring the progress of this project and the progress of the whole PG&E divestiture program at both the PUC and the Legislature.

APPENDIX D

DESCRIPTION OF RELATIONSHIP OF THIS NEXT-PHASE PROJECT TO LOCAL GOVERNMENT

Since this project entails working in San Francisco (with the PUC) and Sacramento (with the Executive agencies, the Legislature, and the Constitutional Officers), and no field work is involved, there is no impact on local communities or governments associated with the performance of the project. No environmental impacts, no access or use of private lands, nor any other activities that might adversely affect the local areas.

Instead, there are a number of counties that will be directly affected by the PG&E hydro divestiture proposal and the alternatives to it. Similarly, there are a large number of local, state, and national stakeholder groups that will be affected. As can be seen from Appendix B and the discussion in the main body of the proposal, all of those groups are being coordinated with in the conduct of this project. Similarly, the large number of groups which are collaborating with the specific recommendation—the Consumers' Authority approach—ensures maximum public notice and involvement in the overall effort.

On the basis of this information and consultation with CALFED staff, it was agreed that the requirement to formally notify local governments affected by this project does not apply in this case.

Environmental Compliance Checklist

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do any of the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), or both?

YES

~~NO~~

2. If you answered yes to # 1, identify the lead governmental agency for CEQA/NEPA compliance.

Lead Agency

3. If you answered no to # 1, explain why CEQA/NEPA compliance is not required for the actions in the proposal.

This is an implementation project among agencies and organizations to form a public-private partnership to implement ecosystem improvements as a part of the PG&E hydro divestiture. No actual on-the-ground field work will be conducted.

4. If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion.

5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?

YES

~~NO~~

If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with 30 days of notification of approval.

6. Please indicate what permits or other approvals may be required for the activities contained in your proposal. Check all boxes that apply.

LOCAL

Conditional use permit _____
Variance _____
Subdivision Map Act approval _____
Grading permit _____
General plan amendment _____
Specific plan approval _____
Rezone _____
Williamson Act Contract _____
cancellation _____
Other _____
(please specify) _____
None required ☒

STATE

CESA Compliance _____ (CDFG)
Streambed alteration permit _____ (CDFG)
CWA § 401 certification _____ (RWQCB)
Coastal development permit _____ (Coastal Commission/BCDC)
Reclamation Board approval _____
Notification _____ (DPC, BCDC)
Other _____
(please specify) _____
None required ☒

FEDERAL

ESA Consultation _____ (USFWS)
Rivers & Harbors Act permit _____ (ACOE)
CWA § 404 permit _____ (ACOE)
Other _____
(please specify) _____
None required ☒

DPC = Delta Protection Commission
CWA = Clean Water Act
CESA = California Endangered Species Act
USFWS = U.S. Fish and Wildlife Service
ACOE = U.S. Army Corps of Engineers

ESA = Endangered Species Act
CDFG = California Department of Fish and Game
RWQCB = Regional Water Quality Control Board
BCDC = Bay Conservation and Development Comm.

Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do the actions in the proposal involve physical changes to the land (i.e. grading, planting vegetation, or breaching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)?

YES

X

NO

2. If NO to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only).

No land use activities are involved. This project involves collaboration, coordination, and implementation between organizations and agencies, not on-the-ground field work

3. If YES to # 1, what is the proposed land use change or restriction under the proposal?

4. If YES to # 1, is the land currently under a Williamson Act contract?

YES

X

NO

5. If YES to # 1, answer the following:

Current land use _____

Current zoning _____

Current general plan designation _____

6. If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on the Department of Conservation Important Farmland Maps?

YES

NO

DON'T KNOW

7. If YES to # 1, how many acres of land will be subject to physical change or land use restrictions under the proposal?

8. If YES to # 1, is the property currently being commercially farmed or grazed?

YES

NO

9. If YES to #8, what are

the number of employees/acre _____

the total number of employees _____

10. Will the applicant acquire any interest in land under the proposal (fee title or a conservation easement)?

YES

 X
NO

11. What entity/organization will hold the interest? _____

12. If YES to # 10, answer the following:

Total number of acres to be acquired under proposal _____

Number of acres to be acquired in fee _____

Number of acres to be subject to conservation easement _____

13. For all proposals involving physical changes to the land or restriction in land use, describe what entity or organization will:

manage the property _____

provide operations and maintenance services _____

conduct monitoring _____

14. For land acquisitions (fee title or easements), will existing water rights also be acquired?

YES

NO

15. Does the applicant propose any modifications to the water right or change in the delivery of the water?

YES

 X
NO

16. If YES to # 15, describe _____

NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95) FMC

COMPANY NAME

Institute for Fisheries Resources

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME

Wm "Zeke" Grader

DATE EXECUTED

May 15, 2000

EXECUTED IN THE COUNTY OF

Marin

PROSPECTIVE CONTRACTOR'S SIGNATURE

Zeke Grader

PROSPECTIVE CONTRACTOR'S TITLE

Executive Director

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Institute for Fisheries Resources

ASSURANCES - CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.


PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal interest in the title of real property in accordance with awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 	TITLE Executive Director
APPLICANT ORGANIZATION Institute for Fisheries Resources	DATE SUBMITTED May 15, 2000

U.S. Department of the Interior

**Certifications Regarding Debarment, Suspension and
Other Responsibility Matters, Drug-Free Workplace
Requirements and Lobbying**

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12.)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

**PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters -
Primary Covered Transactions**

CHECK ☐ IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records; making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -
Lower Tier Covered Transactions**

CHECK ☐ IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART C: Certification Regarding Drug-Free Workplace Requirements

CHECK ☒ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about--
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

P.O. Box 29196
San Francisco 94129-0196

Check ☐ if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

CHECK ☐ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK ☒ IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT, SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK ☐ IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

Zeke Grader

TYPED NAME AND TITLE

William "Zeke" Grader, Executive Director

DATE

May 15, 2000

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL		TITLE	
<i>Gabe Snader</i>		<i>Executive Director</i>	
APPLICANT ORGANIZATION		DATE SUBMITTED	
<i>Institute for Fisheries</i>		<i>May 15, 2000</i>	

ATTACHMENT

NOTICE REGARDING LOCAL NOTIFICATION LETTER

This project does not involve any work in local communities or counties, nor does it entail access to any private land. Furthermore, it does not entail any field work or other on-the-ground activity. Appendix D to this proposal discusses this matter further. Based on consultation with CALFED staff, it was determined that a Local Notification Letter was not required for this project.